Summary of the Resolution of the Key Technical Issue on Total System Performance Assessment and Integration Features, Events, and Processes

Subissue #	Subissue Title	<u>Status</u>	Preliminary NRC/DOE Agreements
2	Scenario analysis within the total system performance assessment methodology	N/A	1) Provide clarification of the screening arguments, as summarized in Attachment 2. See Comment # 5, 7, 8, 9, 10, 13, 18, 19 (Part 5), 21, 29, 32, 41, 43, 44, 47, 49, 50, 51, 53, 58, 67, 78, and 79. DOE will clarify the screening arguments, as summarized in Attachment 2, for the highlighted FEPs. The clarifications will be provided in the referenced FEPs AMR and will be provided to the NRC in FY02 and FY03. 2) Provide the technical basis for the screening argument, as summarized in Attachment 2. See Comment # 19 (Parts 1, 2, and 6), 25, 26, 36, 37, 38, 39, 57, 60, and 61. DOE will provide the technical basis for the screening argument, as summarized in Attachment 2, for the highlighted FEPs. The technical basis will be provided in the referenced FEPs AMR and will be provided to the NRC in FY02 and FY03. 3) Add the FEPs highlighted in Attachment 2 to the appropriate FEPs AMRs. See Comment 19 (Part 7 and 8) and 20. DOE will add the FEPs highlighted in Attachment 2 to the appropriate FEPs AMRs. The FEPs will be added to the appropriate FEPs AMRs and the AMRs will be provided to the NRC in FY02 and FY03.
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4) Provide a clarification of the description of the primary FEP. See Comments 24, 31, and 33.

DOE will clarify the description of the primary FEPs, as summarized in Attachment 2, for the highlighted FEPs. The clarifications will be provided in the referenced FEPs AMR and will be provided to the NRC in FY02 and FY03.

5) DOE needs to demonstrate how errors propagate in performance assessment from conservative (fast) rates of spent fuel dissolution. In addition, DOE needs to demonstrate that uncertainties in rates of spent fuel dissolution under low pH conditions are adequately represented in the performance assessment model, given the limited set of data.

DOE will clarify propagation of uncertainties in spent fuel dissolution rates through TSPA in the In-package Chemistry Abstraction AMR, ANL-EBS-MD-000037 in FY02. DOE is conducting low pH flow-through experiments and will update the Commercial Spent Nuclear Fuel Degradation AMR, ANL-EBS-MD-000015 in FY02, as appropriate. In FY02, DOE will demonstrate in the Commercial Spent Nuclear Fuel Degradation AMR, ANL-EBS-MD-000015 that the CSNF models do not lead to optimistic results in the 10,000 year regulatory period.

6) DOE has alternative models for spent nuclear fuel dissolution (e.g., drip test results at ANL). DOE needs to clarify why the alternative models have not been incorporated in the DOE TSPA.

DOE noted that Argonne National Laboratory Spent Nuclear Fuel drip tests corroborate the flow-through model. Other tests indicate that the model is bounding. This discussion in the Commercial Spent Nuclear Fuel Degradation AMR, ANL-EBS-MD-000015 will be clarified in FY02. In FY02, DOE will demonstrate in the Commercial Spent Nuclear Fuel Degradation AMR, ANL-EBS-MD-000015 that the models do not lead to optimistic results in the 10,000 year regulatory period.